

Amendments to the Claims

The following listing of the claims will replace all prior versions, and listings of the claims in the application:

Listing of Claims

1. (Currently amended) A mobile information apparatus (10) comprising:
 - (A) a battery storage section (2) including a rechargeable battery (21);
 - (B) a power supply section (1) for converting electric power provided by one of an external power supply (A) and said rechargeable battery (21) to ~~pre-determined~~ direct current power, and charging said rechargeable battery (21) with electric power provided by said external power supply (A);
 - (C) a schedule recording section (4) for recording a user's schedule;
 - (D) a charge-state optimization planning section (5) for determining a plan for the optimization of the charge state of said rechargeable battery (21) according to said schedule; and
 - (E) a power-supply control section (3) for establishing charge and discharge conditions based on said plan for the optimization, and, on the charge and discharge conditions, controlling the charge and discharge of said rechargeable battery (21) by said power supply section (1).

(FIG. 1)

2. (Currently amended) A method ~~of~~ for optimizing the charge state of a battery in a mobile information apparatus (10), comprising the steps of:
 - (A) (S1) recording a user's schedule;
 - (B) (S2+S3) determining a plan for the optimization of the charge state of a rechargeable battery (21) in a battery storage section (2) according to said schedule;
 - (C) (S4) establishing charge and discharge conditions based on said plan for the optimization; and
 - (D) (S5) controlling the charge and discharge of said rechargeable battery (21) by a power supply section (1) on said charge and discharge conditions. (FIG. 2)

3. (Currently amended) The mobile information apparatus according to claim 1 further comprising a A charge-state optimization program ~~of~~ for causing ~~the~~ a CPU of the mobile information apparatus (10) ~~according to claim 1~~ to function as said schedule recording section

(4), said charge-state optimization planning section (5), and said power-supply control section (3).

4. (Currently amended) A battery management server (30) for providing a plan for an optimization of the charge state of a battery in ~~to~~ a battery-powered electrical apparatus (31, 32, 33, and 34), said apparatus (31, 32, 33, and 34) comprising:

(a) a communications section (7) for performing data communications with a network (6) of the outside;

(b) a battery storage section (2) including a rechargeable battery (21);

(c) a power supply section (1) for converting electric power provided by one of an external power supply (A) and said rechargeable battery (21) to ~~pre-determined~~ direct current power, and charging said rechargeable battery (21) by the electric power provided by said external power supply (A); and

(d) a power-supply control section (3) for establishing charge and discharge conditions based on the plan for the optimization of the charge state of said rechargeable battery (21), and, on the charge and discharge conditions, controlling the charge and discharge of said rechargeable battery (21) by said power supply section (1);

said server (30) ~~comprises~~ comprising:

(A) a network interface (8) for performing data communications with said network (6);

(B) a schedule recording section (4) for recording a user's schedule;

(C) a device-list management section (9) for monitoring a connection to said network (6) by said battery-powered electrical apparatus (31, 32, 33, and 34), and creating and updating a list of said battery-powered electrical apparatuses (31, 32, 33, and 34) connected to said network (6); and

(D) a charge-state optimization planning section (5A) for determining said plan for the optimization about each of said battery-powered electrical apparatuses (31, 32, 33, and 34) included in said list, and informing each of said battery-powered electrical apparatuses (31, 32, 33, and 34) of the plan for the optimization. (FIG. 4)

5. (Currently amended) A method ~~of~~ for optimizing a charge state of a battery in a battery-powered electrical apparatus (31, 32, 33, and 34) by a battery management server (30), comprising the steps of:

- (A) (S10) recording a user's schedule;
- (B) (S16) monitoring a connection to a network (6) by said battery-powered electrical apparatus (31, 32, 33 and 34);
- (C) (S11) creating and updating a list of said battery-powered electrical apparatuses (31, 32, 33, and 34) connected to said network (6);
- (D) (S12+S13) for each of said battery-powered electrical apparatuses (31, 32, 33, and 34) included in said list, determining a plan for the optimization of the charge state of a rechargeable battery (21) in a battery storage section (2) by said battery management server (30) according to said schedule;
- (E) (S14) informing each of said battery-powered electrical apparatuses (31, 32, 33, and 34) of said plan for the optimization by said battery management server (30) through said network (6);
- (F) (S15) establishing charge and discharge conditions based on said plan for the optimization by each of said battery-powered electrical apparatuses (31, 32, 33, and 34); and
- (G) (S15) controlling the charge and discharge of said rechargeable battery (21) by a power supply section (1) on said charge and discharge conditions in each of said battery-powered electrical apparatuses (31, 32, 33 and 34). (FIG. 5)

6. (Currently amended) The battery management server (30) according to claim 4, further comprising a charge-state optimization program for causing ~~the~~ a CPU of the battery management server (30) ~~according to claim 4~~ to function as said schedule recording section (4), said device-list management section (9), and said charge-state optimization planning section (5A).